

CALL FOR A POSTDOCTORAL RESEARCHER HIRING UNDER ARTICLE 19 FROM DECREE-LAW NR 57/2016, OF 29<sup>th</sup> AUGUST,  
ALTERED BY LAW NR 57/2017, OF 19<sup>th</sup> JULY

**Reference IMM/CT/94-2021**

Instituto de Medicina Molecular João Lobo Antunes (iMM) opens a call for the hiring of a Postdoctoral Researcher correspondent to the initial level according to the Applicable Regulation, under an **Unfixed-term contract**, with the funding support from National Funds (FCT-MEC) under the project *PTDC/OCE-ETA/4836/2021- "Development of lupine and chickpea-based beverage as a functional food against colorectal cancer"*.

**Regulation**

- Decree-Law nr 57/2016, from 29<sup>th</sup> August, altered by Law nr 57/2017, from 19<sup>th</sup> July, that approves a Doctoral Hiring regime to stimulate Scientific and Technological Employment in all knowledge areas (RJEC).
- Portuguese Labor Law, approved by Law nr 7/2009, from 12<sup>th</sup> February in its current writing.
- Regulatory Decree Nr 11-A / 2017, of 29<sup>th</sup> December.
- Decree-Law nr 10-B/2020, from 20<sup>th</sup> March.

1. **Work Plan Activities:** Despite advances in understanding cancer at the molecular level, cancer drug failure is often a result of toxicity or inefficacy. Hence, we currently see a shift in the mindset of manufacturers and clinicians: rather than relying purely on medicinal products for the prevention and treatment of diseases, more natural alternatives for both disease management and prevention are often procured, particularly in the case of cancer diseases. With the emerging functional food and nutraceutical industry, novel candidates that have high applicability, as well as innovation and easiness to manufacture industrially fit perfectly within the goals of cost-effectiveness and innovation following EU Sustainable Development goals (SDGs). This approach could be particularly effective in colorectal cancer (CRC), as it is becoming clearer, as research continues, that nutrition plays a major role in this cancer type. We recently found a peptide isolated from lupine seeds with anti-inflammatory and anti-cancer properties. We would like now to produce a lupine and chickpea-based beverage with anti-tumour properties. For that, we propose to produce a novel functional pulse beverage to be used in preventive/curative approaches to CRC and test its applicability *in vitro* and *in vivo*, using innovative models of colon cancer developed. Our specific goals will be:

- 1) to develop a food technology to produce lupine and chickpea beverages,
- 2) to test its applicability in realistic pre-clinical models.

Due to its translational nature, the project will be mostly divided into 2 parts:

Part 1 – Development of lupine and chickpea beverages. Here we will test several strategies to produce a high-quality food product that is not only appealing to consumers but also serve as a functional food, maintaining activity and functionality. We will also assess its bioactivities, digestibility and impacts on the gut microbiome.

Part 2: Evaluation of antitumor activity *in vitro* and *in vivo*.

Concomitantly to part 1, we will test the efficacy of isolated peptides, and later the developed beverage in three different types of cancer models: a 3D-cell model, the zebrafish xenotransplant model and mouse models.

2. **Members of the Jury:** According to article nr 13 from RJEC, the jury is composed by Dr. André Mansinho (President of the Jury and Co-Responsible for the Project) and Professors Luís Costa and Sandra Casimiro.
3. **Start Date and workplace:** The contract is expected to start in March 2022 and will remain only for the necessary execution period of the work plan; the activities will be developed in iMM installations and/or other necessary locations to their execution.
4. **Monthly remuneration:** Gross monthly Remuneration is **2.134,73€**, in accordance with subsection a), section 1, article 15 from Law nr 57/2017, 19th July, and with the remuneration position at initial level predicted in article 2 of Regulatory Decree nr 11-A/2017, of 29<sup>th</sup> December, correspondent to level 33 at Tabela Remuneratória Única, approved by Order nr 1553-C/2008, 31<sup>st</sup> December and updated by Decree-Law nr 10B/2020, from 20<sup>th</sup> March.
5. **Profile of Candidate:** Any National, foreign and stateless candidate(s) that hold the following requirements can apply:
  - PhD degree in Biomedical Sciences (preferable Biochemistry and Molecular Biology);

- Proved expertise in the cancer field;
- International experience;
- Proved experience working with molecular techniques (DNA and RNA, Sequencing, Mutagenesis);
- Proved experience working with cellular models (2D and 3D cell culture techniques);
- Proved experience working with zebrafish and mouse cancer models.

**IMPORTANT NOTE:** *In the event the PhD degree was awarded by a foreigner higher institution, the degree must comply with the provisions of Decree-Law nr 66/2018, 18<sup>th</sup> August, and all formalities established there must be fulfilled by applications deadline.*

6. **Application process:** The call is open from 31<sup>st</sup> of December 2021 until 10<sup>th</sup> of February 2022 (30 working days), and the application documents (indicated below) should be submitted, in PDF format, through IMM website by clicking in the “Apply” button below the position job ad:

- Motivation Letter in English;
- Detailed CV;
- PhD Certificate (Please check “**IMPORTANT NOTE**” in the “Profile of Candidate”);
- Other documents that applicant may consider to be relevant to prove the scientific course (Optional).

**Note:** *The non-compliance with these requirements determines the immediate rejection of application.*

6.1. False statements provided by the candidates shall be punished by law.

6.2. *IMM promotes a non-discrimination and equal access policy, wherefore no candidate can be privileged, benefited, impaired or deprived of any rights whatsoever, or be exempt of any duties based on their ancestry, age, sex, sexual preference, marital status, family and economic conditions, instruction, origin or social conditions, genetic heritage, reduced work capacity, disability, chronic illness, nationality, ethnic origin or race, origin territory, language, religion, political or ideological convictions and union membership.*

6.3. Pursuant to Decree-Law nr 29/2001 of 3<sup>rd</sup> February, disabled candidates shall be preferred in a situation of equal classification, and said preference supersedes any legal preferences. Candidates must declare, on their honour, their respective disability degree, type of disability and communication / expression means to be used during selection period on their application form, under the regulations above.

7. **Evaluation criteria:** The admitted applications will be evaluated taking into account the quality, timeliness and relevance of the scientific path (scientific production and research experience) and curriculum of each candidate (a) and their adequacy to the proposed work plan.

**Curriculum Analysis (85%) and Motivation Letter (15%)** - Based on the Curriculum, it will be analyzed qualitatively, and in what concerns to its content and relevance for the tasks to be performed, namely: executed and/or published scientific work, with special emphasis on areas related to the work plan (25%); research experience and relevant knowledge in the area of the proposed work plan as described in the candidate profile (60%). Based on the letter of motivation will be evaluated the motivation and interest for the activities to be performed (10%), command of the English language (5%).

7.1. After evaluation of all admitted applications, the jury will produce a meeting minute with all process of recruitment, evaluation and selection including an ordered short list of approved candidates (alphabetic order) and their respective classification.

7.2. The final decision of the jury shall be validated by the Head of the Institution, who is also in charge of deciding about the hiring.

8. **Results:** Both admitted and excluded candidates list and final classification list shall be posted at IMM website at <https://imm.medicina.ulisboa.pt/jobs/#results> and all admitted candidates will be notified by email.

9. **Preliminary Hearing and Final Decision Deadline:** Pursuant to article 121 of the Administrative Procedure Code, after notified, all candidates have 10 working days to respond. Panel’s final decisions are pronounced within a period of 90 days, from application deadline.

**Lisbon, 30<sup>th</sup> of December 2021**